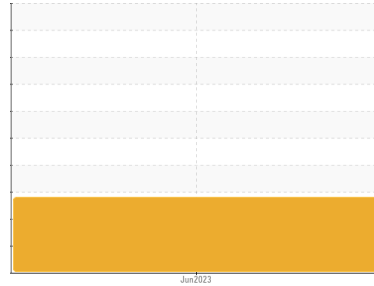




PROBLEM SUMMARY

Sample Rating Trend



FUEL

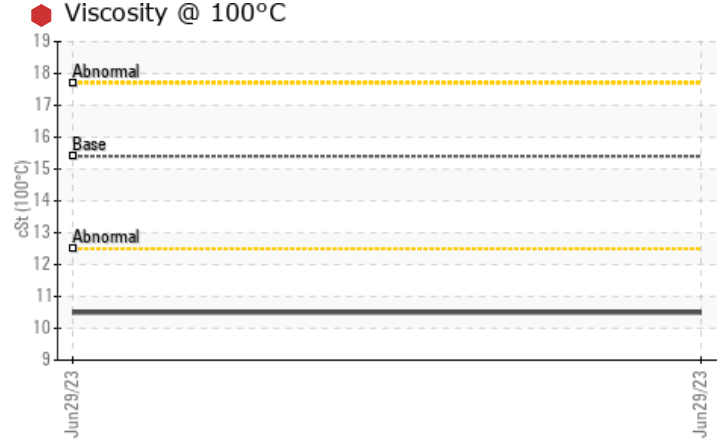
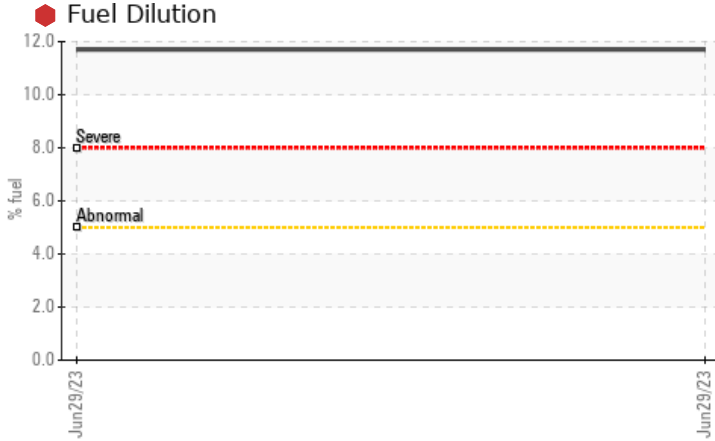


Machine Id
FREIGHTLINER 27

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (13 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | SEVERE | --- | --- |
|---------------|-----|------------|------|---------------|-----|-----|
| Fuel | % | ASTM D3524 | >5 | 11.7 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 10.5 | --- | --- |

Customer Id: ATRPIN
Sample No.: PCA0100684
Lab Number: 05889869
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

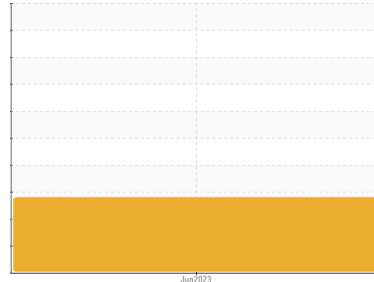
RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|----------------------------|--------|------|---------|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |
| Check Fuel/injector System | --- | --- | ? | We advise that you check the fuel injection system. |

HISTORICAL DIAGNOSIS



Machine Id
FREIGHTLINER 27
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (13 LTR)



DIAGNOSIS

Recommendation
 We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
 All component wear rates are normal.

Contamination
 There is a high amount of fuel present in the oil.

Fluid Condition
 Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

| method | limit/base | current | history 1 | history 2 |
|---------------|-------------|--------------------|---------------|-----------|
| Sample Number | Client Info | PCA0100684 | --- | --- |
| Sample Date | Client Info | 29 Jun 2023 | --- | --- |
| Machine Age | mls | Client Info | 550783 | --- |
| Oil Age | mls | Client Info | 26079 | --- |
| Oil Changed | Client Info | Changed | --- | --- |
| Sample Status | | SEVERE | --- | --- |

CONTAMINATION

| method | limit/base | current | history 1 | history 2 |
|--------|------------|------------|-----------|-----------|
| Glycol | WC Method | NEG | --- | --- |

WEAR METALS

| method | limit/base | current | history 1 | history 2 | |
|----------|------------|------------------|--------------|-----------|-----|
| Iron | ppm | ASTM D5185m >80 | 49 | --- | --- |
| Chromium | ppm | ASTM D5185m >5 | 2 | --- | --- |
| Nickel | ppm | ASTM D5185m >2 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | 0 | --- | --- |
| Silver | ppm | ASTM D5185m >3 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m >30 | <1 | --- | --- |
| Lead | ppm | ASTM D5185m >30 | 20 | --- | --- |
| Copper | ppm | ASTM D5185m >150 | 2 | --- | --- |
| Tin | ppm | ASTM D5185m >5 | 1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185m | 0 | --- | --- |

ADDITIVES

| method | limit/base | current | history 1 | history 2 | |
|------------|------------|------------------|--------------|-----------|-----|
| Boron | ppm | ASTM D5185m 0 | 0 | --- | --- |
| Barium | ppm | ASTM D5185m 0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m 60 | 53 | --- | --- |
| Manganese | ppm | ASTM D5185m 0 | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m 1010 | 776 | --- | --- |
| Calcium | ppm | ASTM D5185m 1070 | 1051 | --- | --- |
| Phosphorus | ppm | ASTM D5185m 1150 | 843 | --- | --- |
| Zinc | ppm | ASTM D5185m 1270 | 1045 | --- | --- |
| Sulfur | ppm | ASTM D5185m 2060 | 2634 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history 1 | history 2 | |
|-----------|------------|-----------------|-------------|-----------|-----|
| Silicon | ppm | ASTM D5185m >20 | 7 | --- | --- |
| Sodium | ppm | ASTM D5185m | 2 | --- | --- |
| Potassium | ppm | ASTM D5185m >20 | 2 | --- | --- |
| Fuel | % | ASTM D3524 >5 | 11.7 | --- | --- |

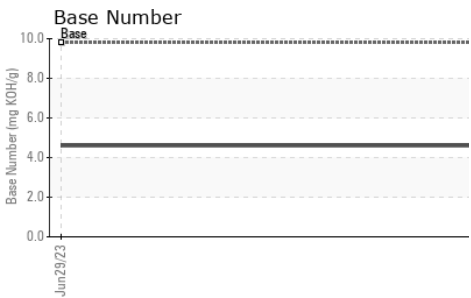
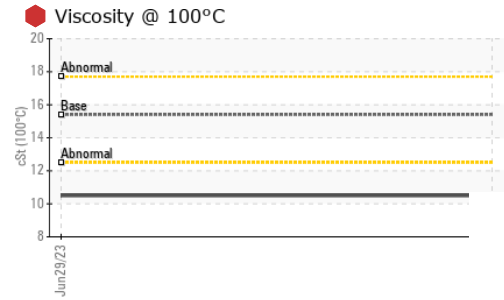
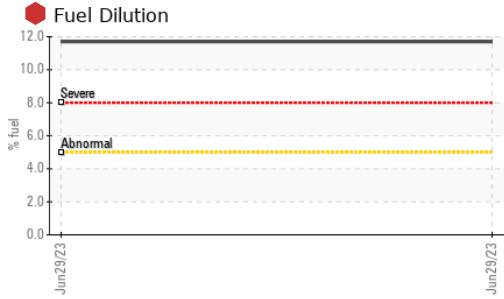
INFRA-RED

| method | limit/base | current | history 1 | history 2 | |
|-----------|------------|-----------------|-------------|-----------|-----|
| Soot % | % | *ASTM D7844 >3 | 2.7 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 >20 | 11.5 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | 30.3 | --- | --- |

FLUID DEGRADATION

| method | limit/base | current | history 1 | history 2 | |
|------------------|------------|-----------------|-------------|-----------|-----|
| Oxidation | Abs/.1mm | *ASTM D7414 >25 | 27.6 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 9.8 | 4.6 | --- | --- |

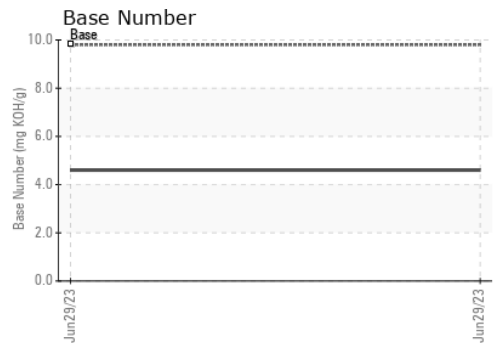
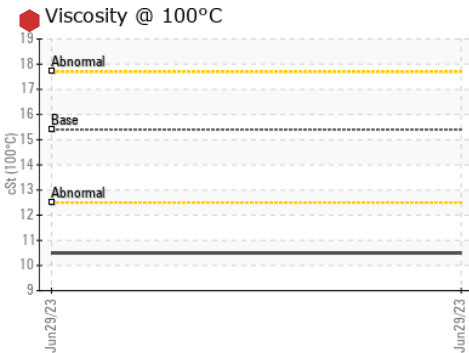
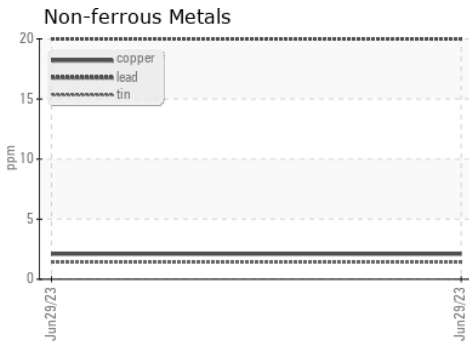
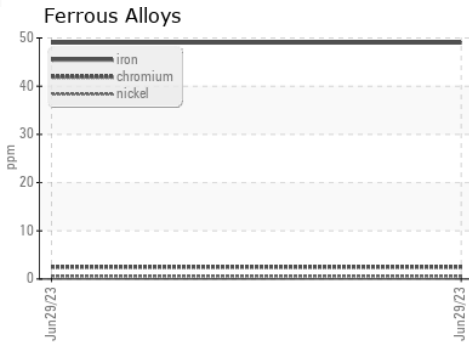
OIL ANALYSIS REPORT



| VISUAL | method | limit/base | current | history 1 | history 2 | |
|------------------|--------|------------|---------|-----------|-----------|-----|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- | --- |
| Free Water | scalar | *Visual | | NEG | --- | --- |

| FLUID PROPERTIES | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|--|-----------|-----------|
| Visc @ 100°C | cSt | ASTM D445 | 15.4 ♦ 10.5 | --- | --- |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0100684 **Received** : 05 Jul 2023
Lab Number : 05889869 **Diagnosed** : 06 Jul 2023
Unique Number : 10545679 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

A Truck Repair
 9349 China Grove Church Road
 Pineville, NC
 US 28134
 Contact: Vlad Melnichuk
 shop@migway.com
 T: (980)255-3200
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)